

CLAIMS

1. Method for interlinking regulation and/or control functions in a motor vehicle, characterized in that the control or regulation functions and the communications structure of the control or regulation functions are defined by graphs containing nodes and directed gridlines, such that the nodes of the graphs represent control or regulation functions and their directed gridlines represent defined communication paths of the control or regulation functions.

2. Method according to claim 1, characterized in that the directed gridlines of the graphs are ordered pairs (X, Y) of control or regulation functions, which are represented as arrows between the nodes.

3. Method according to claims 1 or 2, characterized in that the nodes represent control or regulation functions G_i , R_i and S_i such that G_i is at least one function defined for each system parameter g_i to be controlled, which defines nominal values $^{soil}g_i$ for g_i , R_i is at least one function defined for each system parameter g_i to be controlled, which controls or regulates g_i by means of nominal value specifications for other functions X_1, X_2, X_3, \dots and S_i is a function defined for each control intervention point s_i , which organises interventions of function X_1, X_2, X_3, \dots on the control intervention point s_i , only one node being provided for one function.

4. Method according to claims 1, 2 or 3, characterized in that for two nodes (X, Y) just one directed gridline (X, Y) is entered in the graph when the function X transmits a nominal operation mode to the function Y , such that when (X, Y) is a directed gridline in the graph, the function Y transmits just one actual operation condition $^{ist}b_Y$ to the function X .

5. Method according to claim 4, characterized in that the function X additionally transmits to the function Y one or more nominal values a, b, c, \dots for system or control parameters a, b, c, \dots and/or the function Y transmits to the function X one or more nominal values l, m, n, \dots for system or control parameters l, m, n, \dots

6. Method according to any of claims 2 to 5, characterized in that via a directed gridline (X, Y) the function Y transmits to the function X optional limits a_{\min} , a_{\max} , b_{\min} , b_{\max} , c_{\min} , c_{\max} , ... within which nominal value specifications of the function X for system or control parameters a, b, c, ... can be realized by the function Y.

7. Method according to any of claims 2 to 6, characterized in that when several functions X_1 , X_2 , X_3 , ... transmit to the function Y nominal values $^{sol}w_{X1}$, $^{sol}w_{X2}$, $^{sol}w_{X3}$, ... for a parameter w, access conflicts are prevented in that, depending on the actual operation mode $^{ist}b_y$ of the function Y, the function Y decides which of the nominal values $^{sol}w_{X1}$, $^{sol}w_{X2}$, $^{sol}w_{X3}$, ... will be used or how the nominal value for the parameter w will be calculated from $^{sol}w_{X1}$, $^{sol}w_{X2}$, $^{sol}w_{X3}$, ..., such that the calculation of the actual operation mode by means of nominal operation modes or actual operation mode is carried out in such manner that a clear selection or calculation of the nominal value for w emerges from the quantity of nominal values $^{sol}w_{X1}$, $^{sol}w_{X2}$, $^{sol}w_{X3}$, ...

8. Method according to any of the preceding claims, characterized in that the gridlines of the graphs are chosen such that no directed cycle is produced.

9. Method according to any of claims 3 to 8, characterized in that the establishment of the directed gridlines comprises the following steps:

a first table is prepared, in whose first column the functions G_i and in whose first row the functions R_i are entered, so that cells (G_i, R_i) are produced, and when G_i defines a nominal value for g_i , this cell (G_i, R_i) of the table is marked;

a second table is prepared, in whose first row the functions S_i and in whose first column the functions R_i are entered, and when the control parameter s_i influences the system parameter g_j and the function R_i uses the function S_i to control g_j the cell (R_i, S_i) is marked, such that the marked cells of the two tables indicate the directed gridlines of the associated graph.